

REMARKS

As a preliminary matter, applicants note that claims 1-15 and 20-29 were not elected in this application, and were canceled without prejudice to filing a divisional application at a later time.

Claims 16-19 stand rejected under § 103(a) on the basis of Matsunuma '738 in view of Wright '530, Burguette '699 in view of Nohr et al. '550, and Lyons et al. '864 in view of Lewis '504. Claim 16 has been amended to avoid these references, and Applicants respectfully traverse because the cited references do not disclose (or suggest) the use of a non-polar endcap group to improve the adhesion of the lubricating film to the surface of the magnetic disk.

The present invention provides a method of forming a magnetic disk having an improved lubricating film. The present invention achieves the foregoing object by coating a disk surface with a lubrication layer having a photocrosslinking functional group and a non-polar endcap group, using a substantially monochromatic far-ultraviolet radiation in the cross-linking step as the optical radiation; and choosing the wavelength of the far-ultraviolet radiation in correspondence to the absorption wavelength of the photocrosslinking functional group.

As a result of the use of the non-polar endcap group, an important contribution to the adherence of the lubricating film to the underlying magnetic disk surface is made. Using the non-polar endcap group in combination with the photocrosslinking functional group, it is possible to achieve a highly cross-linked lubricating layer that has improved

adherence to the magnetic disk. As a result of the improved adhesion, a high bonding rate and low surface free energy (high water contact angle) can be realized for the lubricating layer, while the lubricating layer effectively fixes the lubricants and expels external contamination or water.

None of the references disclose (or suggest) the use of non-polar endcap groups in the resin skeleton of the lubrication film. Thus, the lubricating film of the present invention uses non-polar endcap groups contrary to the conventional lubricating film that uses polar endcap groups such as oxoacid group, hydroxyl group, ester group, ether group, carboxyl group, formyl group, and the like.

Further, none of the references discloses (or suggests) the phenomenon that the introduction of a non-polar endcap group improves the adherence of the lubricating film to an underlying disk surface or hard carbon protective film, particularly a DLC film.

For the foregoing reasons, Applicants believe that this case is in condition for allowance, which is respectfully requested. The examiner should call Applicants' attorney if an interview would expedite prosecution.

Respectfully submitted,

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